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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,639	06/27/2003	Marc Andre Boillot	CE10967JAI016	8714

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EXAMINER

HARPER, V PAUL

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/607,639	Applicant(s) BOILLOT ET AL.	
	Examiner V. Paul Harper	Art Unit 2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 07 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 15-17 is/are allowed.
- 6) ☒ Claim(s) 9-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Oath/Declaration

1. The objection to the Oath/Declaration is withdrawn.

Claim Objections

2. All objections are noted as being satisfied.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rayskiy (U.S. Patent 6,278,387), hereinafter referred to as Rayskiy, in view of Selly (International Publication WO 02/09090 A2), hereinafter referred to as Selly, and Snelgrove et al. (International Publication WO 01/74040 A2), hereinafter referred to as Snelgrove

Regarding **claim 9**, Rayskiy discloses an audio encoder and decoder utilizing time scaling for variable playback. Rayskiy's system includes the following:

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- a loopback path to provide user definable speed adjustment in audio feedback via a loopback rate to a user ..., wherein the loopback circuit includes an audio output module ... (Fig. 1, item 125--1st audio signal outputs to a communication channel or storage, and item 119--2nd audio signal; col. 1, lines 45-51, where the second audio signal may be a compressed bit stream of the first audio signal, i.e., loopback, and is output, item 121);
- a user interface for adjusting the loopback rate (Fig. 1, item 113, e.g. col. 3, lines 22-25).

Although Rayskiy discloses a codec that interfaces with communication channel or storage device (see Fig. 1, item 117), Rayskiy does not specifically teach "talking into a wireless messaging device." However, the examiner contends that this concept was well known in the art, as taught by Snelgrove.

In the same field of endeavor, Snelgrove discloses a voicemail system for wireless systems that uses variable playback rates (abstract, p. 1, line 15 through p. 11, line 1).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Rayskiy by specifically providing the features, as taught by Snelgrove, because it is well known in the art at the time of invention as a way to efficiently use available bandwidth (Snelgrove, p. 1, line 28 through p. 11, line 1).

Furthermore, Rayskiy teaches that the audio output is coupled a buffer (Fig. 5, item 507), but Rayskiy does not specifically teach "wherein the loopback circuit includes

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an audio output module coupled to a single circular outbound audio buffer for playing audio for the user to hear therefrom.”

However, the examiner contends that this concept was well known in the art, as taught by Selly.

In the same field of endeavor, Selly discloses a continuously variable time scale modification of digital audio signals. Selly's system includes the use of a circular output buffer (Fig. 4, “Output Buffer,” p. 9, lines 10-20).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Rayskiy by specifically providing the features, as taught by Selly, because it is well known in the art at the time of invention as a highly accurate way to perform time scale modification (Selly, p. 5, lines 3 and 4).

Regarding **claim 10**, Rayskiy in view of Selly and Snelgrove teaches everything claimed, as applied above (see claim 9). In addition, Rayskiy teaches the use of “a SOLA (Synchronized OverLap and Add) function operating on the audio” (abstract, Fig. 5), but Rayskiy does not specifically teach that a SOLA function operating on audio “in the circular outbound audio buffer, which is stored as a series of sequential time-based audio samples.” However, the examiner contends that this concept was well known in the art, as taught by Selly.

Selly further discloses the use of a circular output buffer for processing audio signals (p. 9, lines 10-20, Fig. 4, item 60).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Rayskiy by specifically providing the features, as taught by Selly, because it is well known in the art at the time of invention as a highly accurate way to perform time scale modification (Selly, p. 5, lines 3 and 4).

Regarding **claim 11**, Rayskiy in view of Selly and Snelgrove teaches everything claimed, as applied above (see claim 10); furthermore, Rayskiy teaches "the loopback rate is set by a user" (Fig. 1, item 113), where the support for a "wireless messaging device" was taught by Snelgrove in the rejection of claim 9.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rayskiy in view of Selly and Snelgrove and further in view of Goldhor.

Regarding **claim 12**, Rayskiy in view of Selly and Snelgrove teaches everything claimed, as applied above (see claim 11). But Rayskiy does not specifically teach "comprising a receiver for receiving the selectable rate variable from a second device." However, the examiner contends that this concept was well known in the art, as taught by Goldhor.

In the same field of endeavor, Goldhor discloses a method for distributing audio over networks, which includes the ability to modify the time-scale playback rate (abstract) and to send playback rate information to the playback device (§¶[0113]).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Rayskiy in view of Selly and Snelgrove by

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specifically providing the capability, as taught by Goldhor, because it is well known in the art at the time of invention for the purpose of conserving network bandwidth ([0113]).

5. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rayskiy in view of Selly, Snelgrove and further in view of Bhadkamkar (U.S. Patent 5,893,062).

Regarding **claim 13**, Rayskiy in view of Selly and Snelgrove teaches everything claimed, as applied above (see claim 2). Rayskiy teaches the ability to set the user rate (Fig. 1, item 113), but Rayskiy does not specifically teach the use of “a vocoder for detecting a word rate in the audio loopback path using at least one of: an energy decision metric; a voicing decision metric; and a tonality measure.” However, the examiner contends that this concept was well known in the art, as taught by Bhadkamkar.

In the same field of endeavor, Bhadkamkar discloses a system with variable rate video playback and synchronized audio. In addition, Bhadkamkar calculates an energy term to calculate the rate of the spoken portions (abstract, col. 3, lines 45-67). (Note: vocoder here is interpreted to mean a device for extracting features for the speech, e.g. energy).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Rayskiy in view of Selly and Snelgrove by

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specifically providing the capability, as taught by Bhadkamkar, because it is well known in the art at the time of invention as an aid in modifying the playback rate (Bhadkamkar, col. 3, lines 45-50).

Regarding **claim 14**, Rayskiy in view of Selly, Snelgrove and Bhadkamkar teaches everything claimed, as applied above (see claim 3), but Rayskiy does not specifically teach “the word rate is used to set the selectable rate variable.” However, the examiner contends that this concept was well known in the art, as taught by Bhadkamkar.

Bhadkamkar further discloses the determination of the target display rate based upon the rate the spoken portions of the audio data are uttered (col. 3, lines 55-65).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Rayskiy in view of Selly and Snelgrove by specifically providing the capability, as taught by Bhadkamkar, because it is well known in the art at the time of invention for the purpose of modifying the speaking rate to match a particular requirement (Bhadkamkar, col. 3, lines 45-50).

Response to Arguments

6. Rejection under 35 U.S.C. §103(a) Rayskiy in view of Selly and Snelgrove et al.

7. Regarding **claim 9**, Applicant asserts on page 23:

The Snelgrove reference discloses a voicemail system that includes a voicemail client, a voicemail server, and a base station. Page 4, line 10

through page 5, line 30. The voicemail server and voicemail client cooperate with the base station to determine appropriate times to transfer voicemails over a wireless local loop and thereby free up bandwidth. Snelgrove et al. abstract. While it is true that the Snelgrove reference also teaches variable playback rates for the voicemails (page 1, line 28 through page 11, line 1), Snelgrove is not at all concerned with "wireless messaging devices for playing audio at user selectable rates" and does not show or suggest "a loopback path to provide user definable speed adjustment in audio feedback via a loopback rate," as recited in claim 9 of the instant application. Instead of teaching a real-time loopback path, Snelgrove teaches away from the real-time compression or expansion concept of the present invention and shows a voicemail system that stores voicemails until sufficient bandwidth is available on the system. Page 7, lines 2-19.

Rayskiy discloses an audio encoder and decoder utilizing time scaling for variable playback. Rayskiy teaches that this system can be connected to a communication channel (col. 1, lines 40-51), that the first audio signal can be sent to storage or looped back (col. 1, lines 44-51; Fig. 1, item 117), and that the rate of playback [of the second audio signal which may be either the looped back version of the first audio signal or data from storage] is user adjustable (col. 3, lines 22-25; col. 1, lines 41-51; Fig. 1, item 119). In addition, Snelgrove teaches a wireless voicemail system including the receipt and delivery of voicemail (abstract, p. 1, line 24 through p. 3, line 26). Thus the combination of Rayskiy in view of Snelgrove teaches a "wireless messaging device for playing audio at user selectable rates" and "a loopback path to provide user definable speed adjustment in audio feedback via a loopback rate." Furthermore, the examiner maintains that all voicemail systems require some form of storage and that the recording or playback of any voicemail message is "real-time."

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8. Rejection under 35 U.S.C. F4103(a) Rayskiy in view of Selly and Snelgrove and further in view of Goldhor et al.

9. Regarding **claim 12**, the Applicant asserts beginning on page 24:

Goldhor et al. discloses Audio data in Goldhor et al. is not transmitted real time, but is always delayed at least one second. Para 0019. The delayed data is then rate varied to mask delays in the audio stream.

The Federal Circuit has consistently held that when a §103 rejection is based upon a modification of a reference that destroys the intent, purpose or function of the invention disclosed in the prior art reference, such a proposed modification is not proper and the prima facie case of obviousness can not be properly made. See *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

In this case, the invention being modified is Rayskiy in view of Selly and Snelgrove where the teaching of Goldhor is the remote setting of the playback rate ([¶0113]), thus the examiner sees no reason why the modification destroys the intent, purpose or function of that invention (Rayskiy in view of Shelly and Snelgrove). Furthermore, there is no indication in the claims that the loopback rate adjustment must be made "real-time."

10. Rejection under 35 U.S.C. §103(a) Rayskiy in view of Selly, Snelgrove et al. and further in view of Bhadkamakar et al.

11. Regarding **claims 13 and 14**, the Applicant refers to the argument regarding the rejection of claim 3 and 4 beginning on page 16:

The Bhadkhamar et al. reference teaches modifying an original set of audio data in accordance with a target display rate, then modifying a related original set of video data to conform to the modifications made to the audio data set, such that the modified audio and video data sets are synchronized. Col. 5, lines 50-67. For instance, if the speech rate changes, then the video rate must change in accordance, such that the video gives the appearance that the actors talking and speaking at the right time. *Bhadkhamar et al. is not concerned with real-time speech compression or expansion that is adjustable by a listener, as, is the present invention.* For this reason, Bhadkhamar et al. do not specifically teach why calculating the audio rate using an energy metric reveals the natural talking rate of an individual speaker. (Italics added)

In response to applicant's argument that Bhakhamar is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the Examiner believes that rate determination procedures taught by Bhadkhamar are in a related field (i.e., Rayskiy describes audio/video playback rate adjustment, col. 1, lines 28-34) and pertinent to the problem at hand.

12. The Applicant further asserts on page 17:

Furthermore, with regard to claim 4 of the instant application, there is no suggestion or motivation in the Bhadkhamar et al. reference to use a word rate to set a selectable rate variable by "using at least one of: an energy decision metric; a voicing decision metric; and a tonality measure" because Bhadkhamar et al. is only interested in aligning an audio stream with a video stream.

Bhadkamkar teaches that the target display rate can be set by evaluating audio data (e.g., computing an energy term or by ascertaining spectral changes for a spoken portion) (col. 3, lines 45-67), which corresponds to detecting a word rate using an energy decision metric or a tonality measure.

Allowable Subject Matter

13. Claims 1-8 and 15-17 allowed.

It is noted that the closest prior art of record, Selly (WO 02/09090 A2) teaches the use of circular buffer for time scale modification of an output signal, but Selly does not teach the use of a single circular fixed-length outbound audio buffer with three modulo pointers where the first and second pointers pointing to sequential audio samples and the third pointing to the position of maximum correlation. Thus, independent claims 1 and 15 are allowable over the prior art of record because the cited prior art alone or in combination, does not fairly suggest or disclose the claimed combination of features.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Paul Harper whose telephone number is (571) 272-7605. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

4/26/2005

V. Paul Harper
Patent Examiner
Art Unit 2654



RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER